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Claim Amendments:

Cancel claims 22-26, and rewrite claim 14, as follows:

- 1-13. (Canceled).
- 14. (Currently Amended) A blood purification device, comprising:
- a duct for the flow of whole blood; along which there is
- a stage for filtering plasma from the whole blood, which is functionally arrangeable in connection to arranged along said duct:
- a plasma purification circuit, and connectable with said stage for filtering plasma; and
- a stage for whole blood dialysis by means of plasma purified in said circuit, said stage for whole blood dialysis comprising a selectively permeable interface for separating at least part of the whole blood stream of said duct from a countercurrent stream of plasma purified in said circuit.
- 15. (Previously Presented) The blood purification device of claim 14, further comprising a filter, which is constituted by an internal compartment crossed by parallel permeable capillaries, the space inside said capillaries delimiting at least part of said duct for the flow of said whole blood, said internal compartment being divided, in the direction of the extension of said capillaries, into two separate compartments, respectively a first compartment that forms said stage for filtering plasma from whole blood and a second compartment that forms said stage for dialyzing the whole blood by means of purified plasma in countercurrent with respect to the whole blood, said first and second compartments being mutually connected at the region where the countercurrent flow of said purified plasma ends, said first and second compartments being further functionally arrangeable in connection respectively to an input and an output of said plasma purification circuit.
- 16. (Previously Presented) The blood purification device of claim 14, wherein said plasma purification circuit is filtered by said stage for filtering plasma from whole blood, which is functionally connected to said stage for dialyzing the whole blood by

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means of purified plasma, said plasma purification circuit being functionally connected to said duct downstream of both said stage for filtering plasma from whole blood and said stage for dialyzing whole blood by means of purified plasma.

17. (Previously Presented) The blood purification device of claim 16, wherein said plasma purification circuit comprises a device for removing water-soluble and dialyzable toxic molecules, which is generally used to purify blood but is used to purify plasma that arrives from said stage for filtering plasma from whole blood.

18. (Previously Presented) The blood purification device of claim 17, wherein said device for removing water-soluble and dialyzable toxic molecules is composed of modules for performing diffusive processes such as high-flux dialysis, convective-diffusive processes, purely convective processes, membrane-based adsorptive processes.

19. (Previously Presented) The blood purification device of claim 18, wherein said device for removing water-soluble and dialyzable toxic molecules comprises a dialyzer that is functionally connected to a dialysate tank, a used dialysate tank, and an infusate tank.

20. (Previously Presented) The blood purification device of claim 16, wherein said plasma purification circuit comprises an adsorptive and/or perfusive purification module, used to purify plasma that arrives from said device for removing water-soluble or dialyzable toxic molecules.

21. (Previously Presented) The blood purification device of claim 20, wherein said adsorptive and/or perfusive purification module comprises one or more adsorption columns and/or one or more perfusion columns on carbon.

22-26. (Canceled).